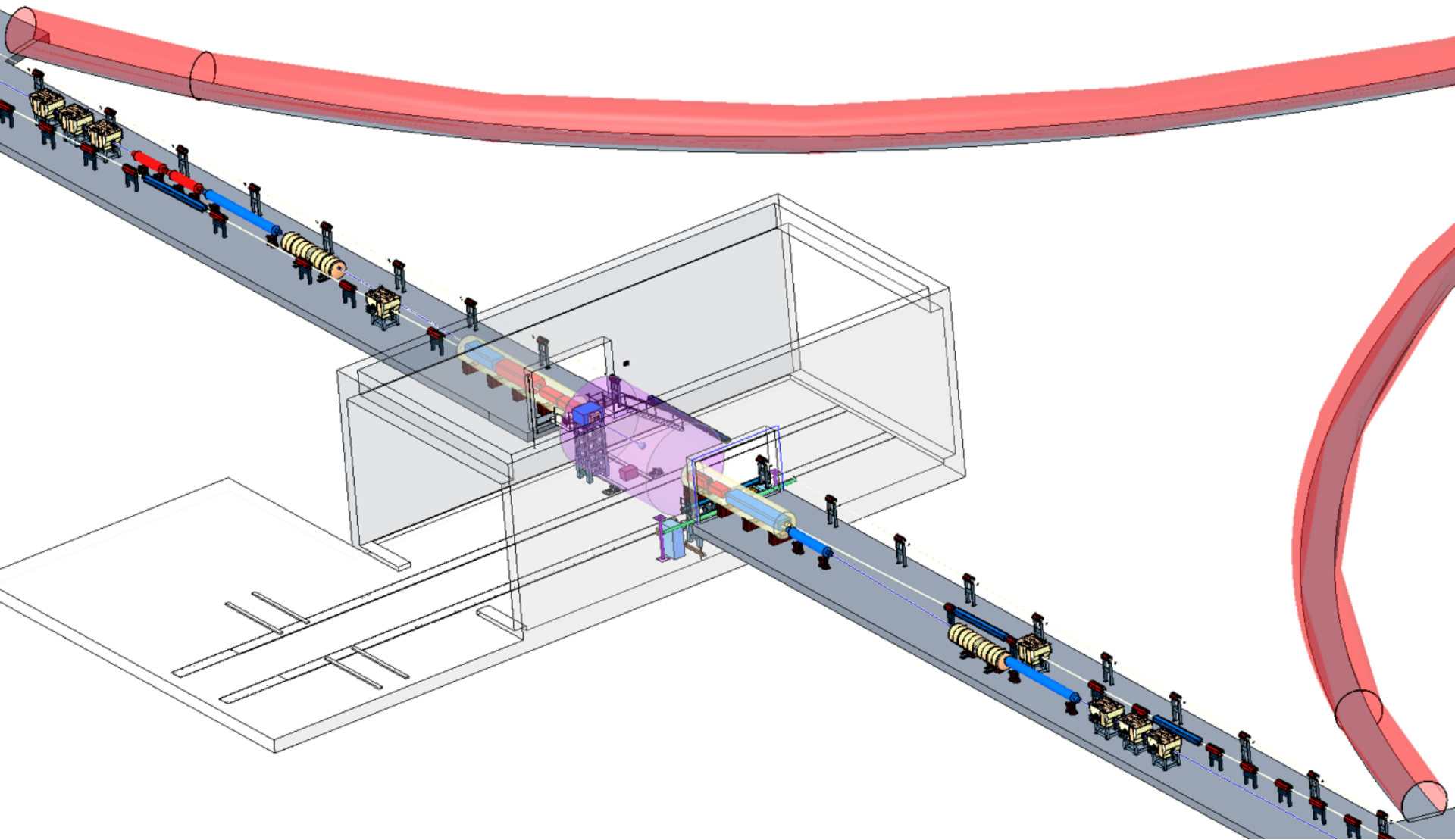


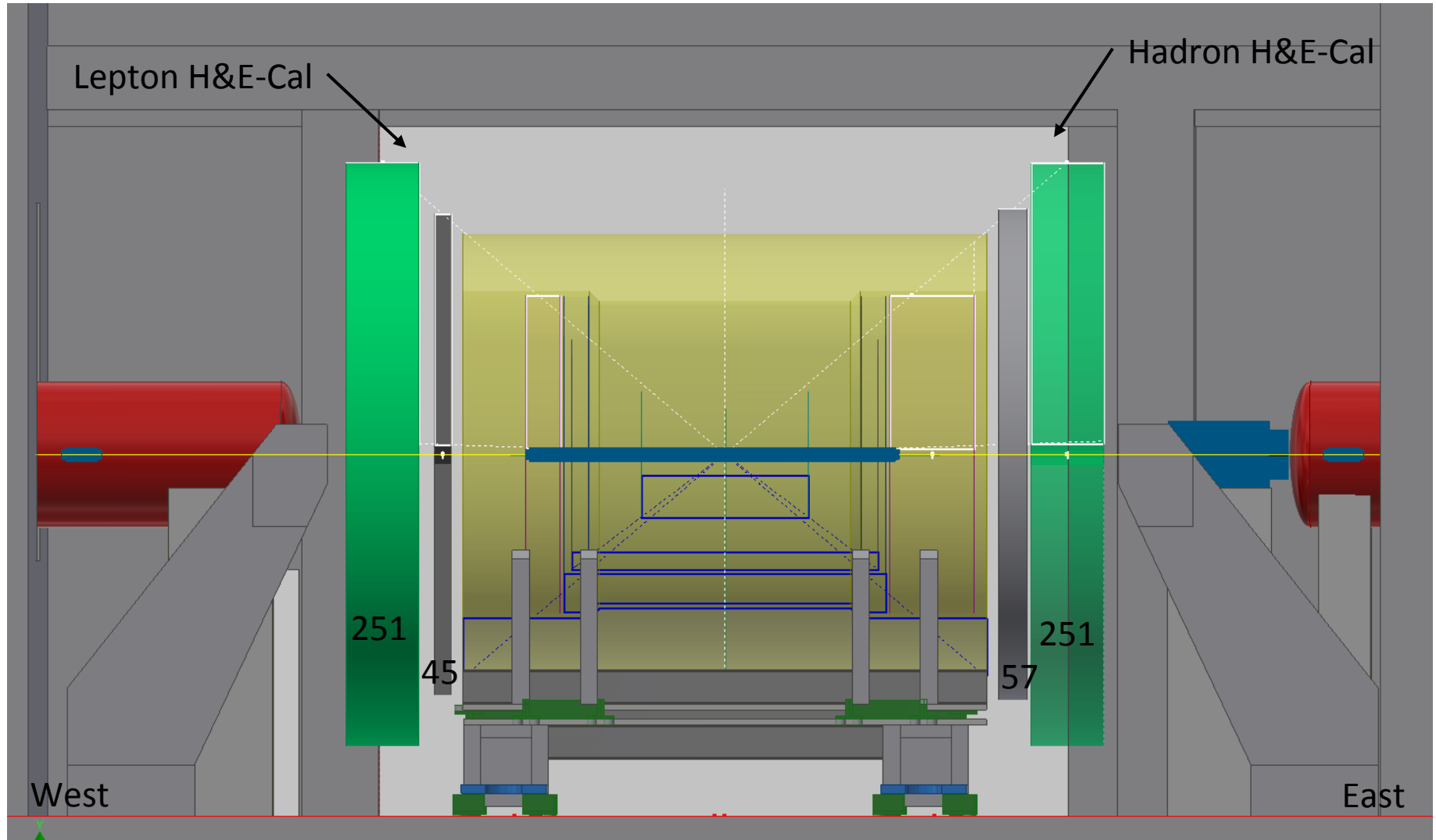
EIC Detector Infrastructure

e-Rhic Magnet Components – Limiting Available Space



EIC Detector Infrastructure

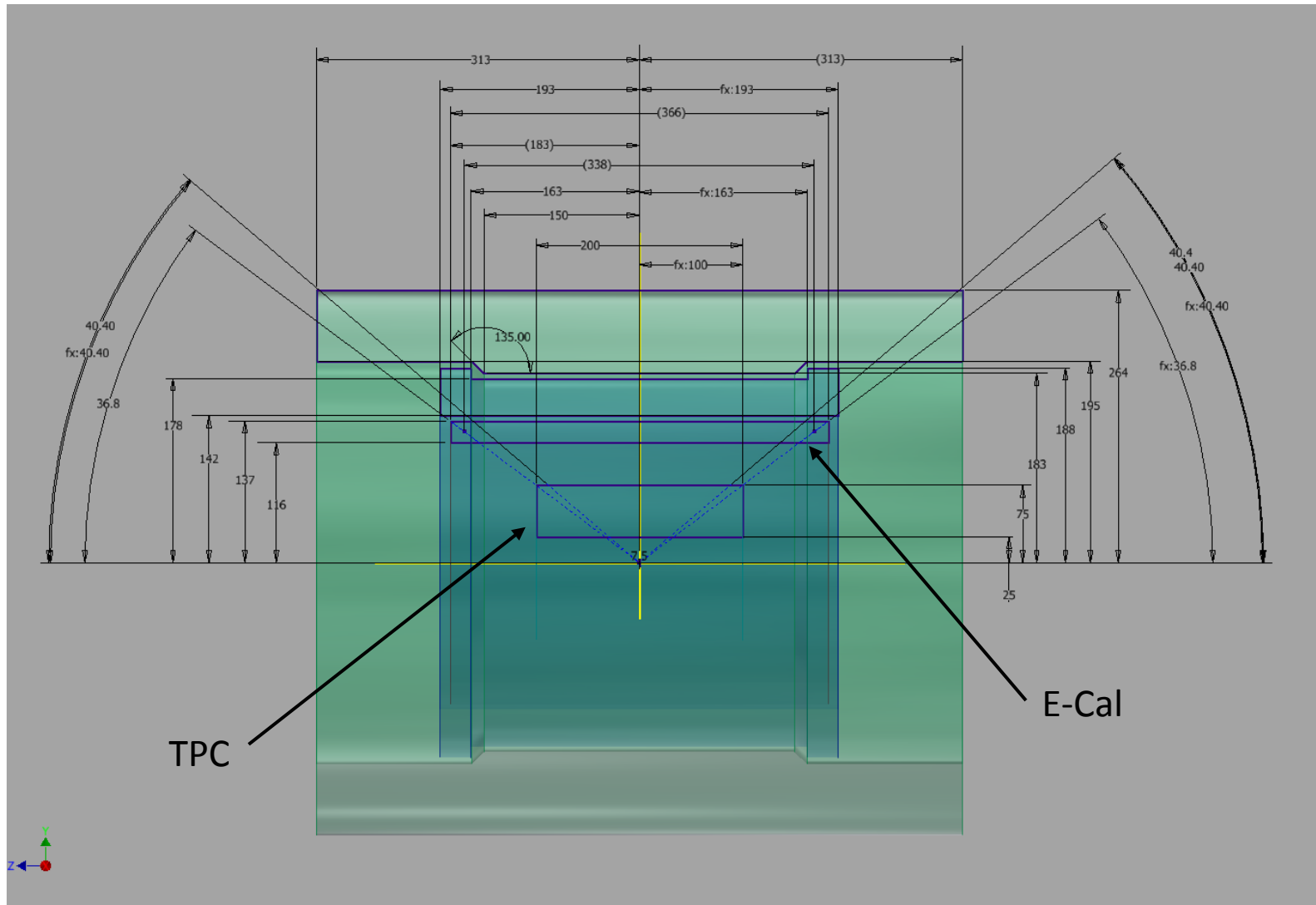
Sizing and Grouping Detectors for Cradles & Carriages



Positions and sizes of detectors changed to eliminate interference
Estimated End-Cap Detector Weights shown (US Ton)

EIC Detector Infrastructure

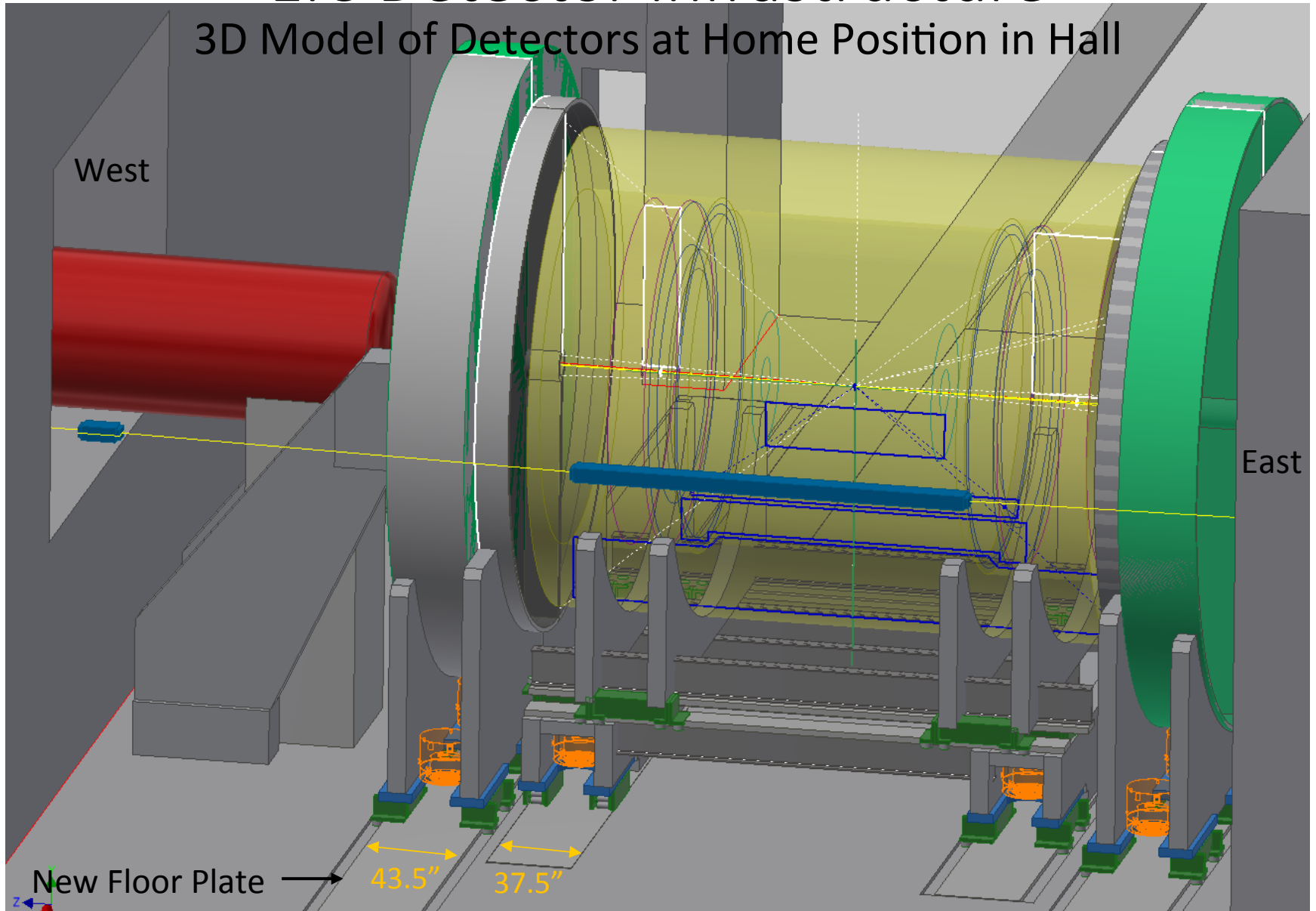
Central Detectors Positioned



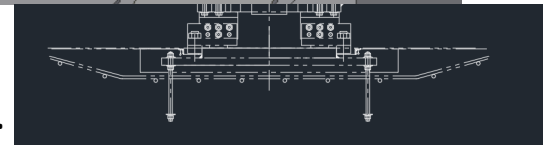
East

EIC Detector Infrastructure

3D Model of Detectors at Home Position in Hall

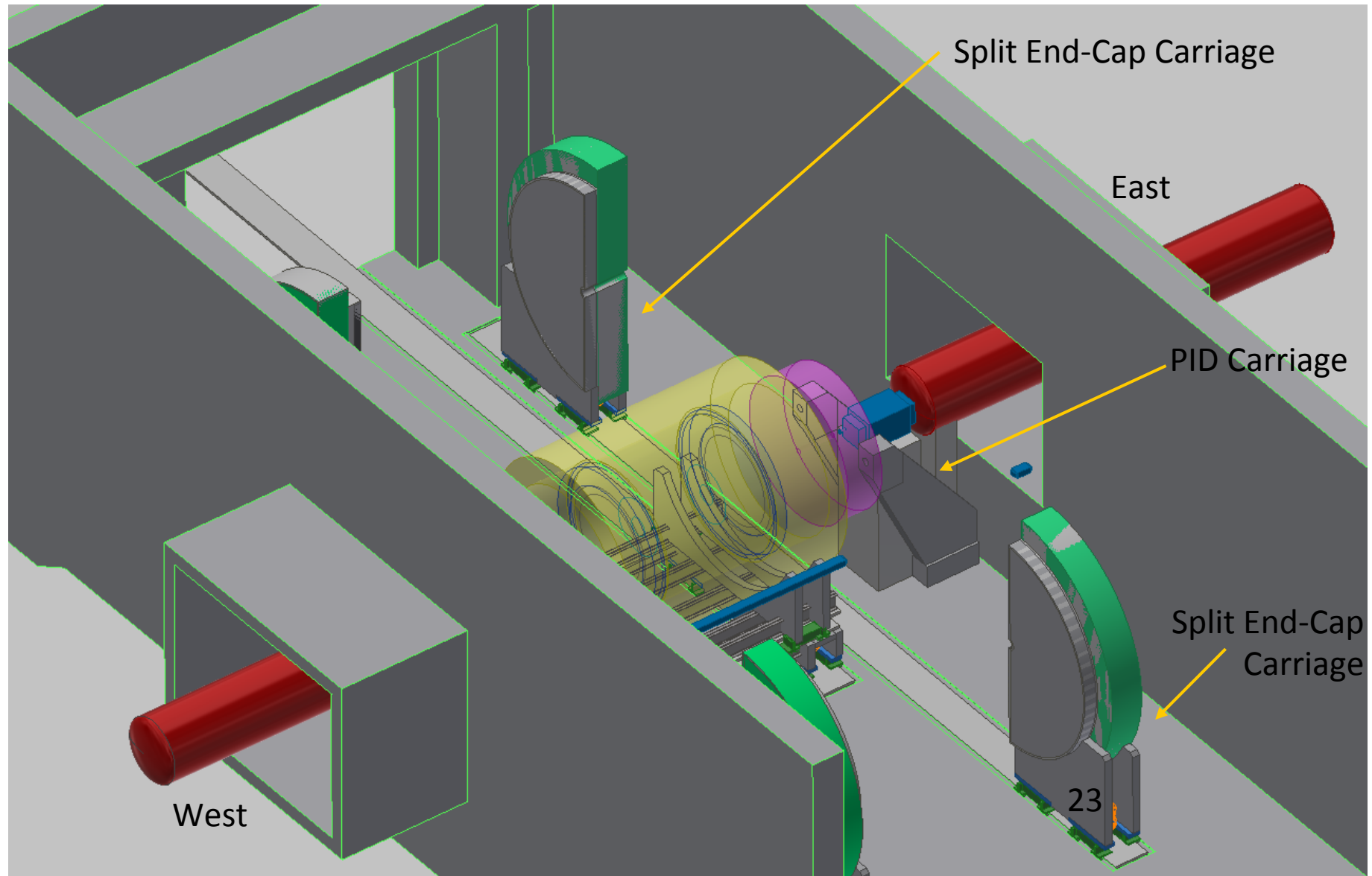


Additional tracks needed inside Hall to open Both End-Caps
Gives access to eRhic Magnets & EIC-PIDs. Wider stance, for stability.



EIC Detector Infrastructure

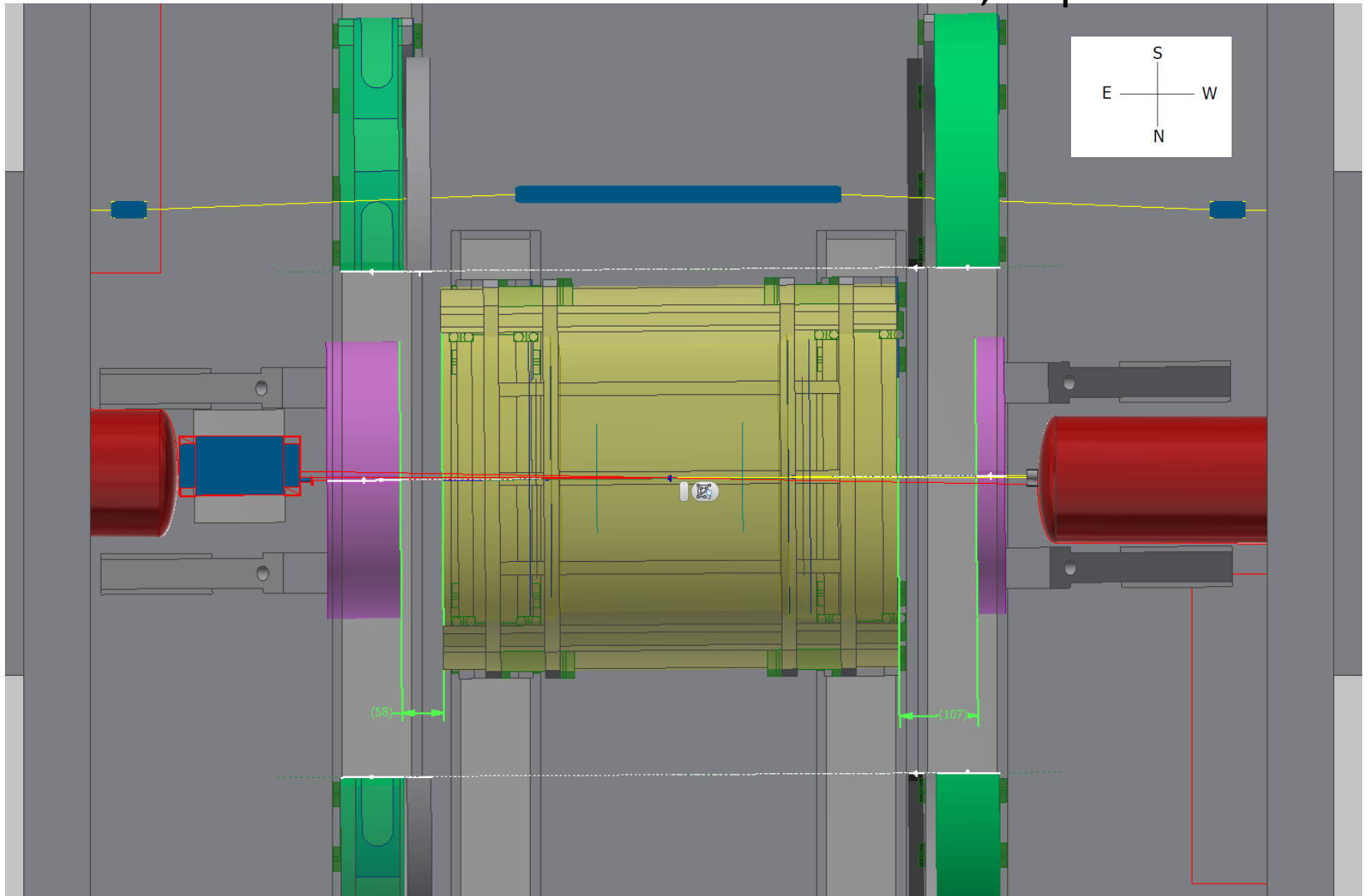
Split Hadron End-Cap, E&H-Cal, and pull out PID



Note: Rough design for Upper Stability Frame is still needed

EIC Detector Infrastructure

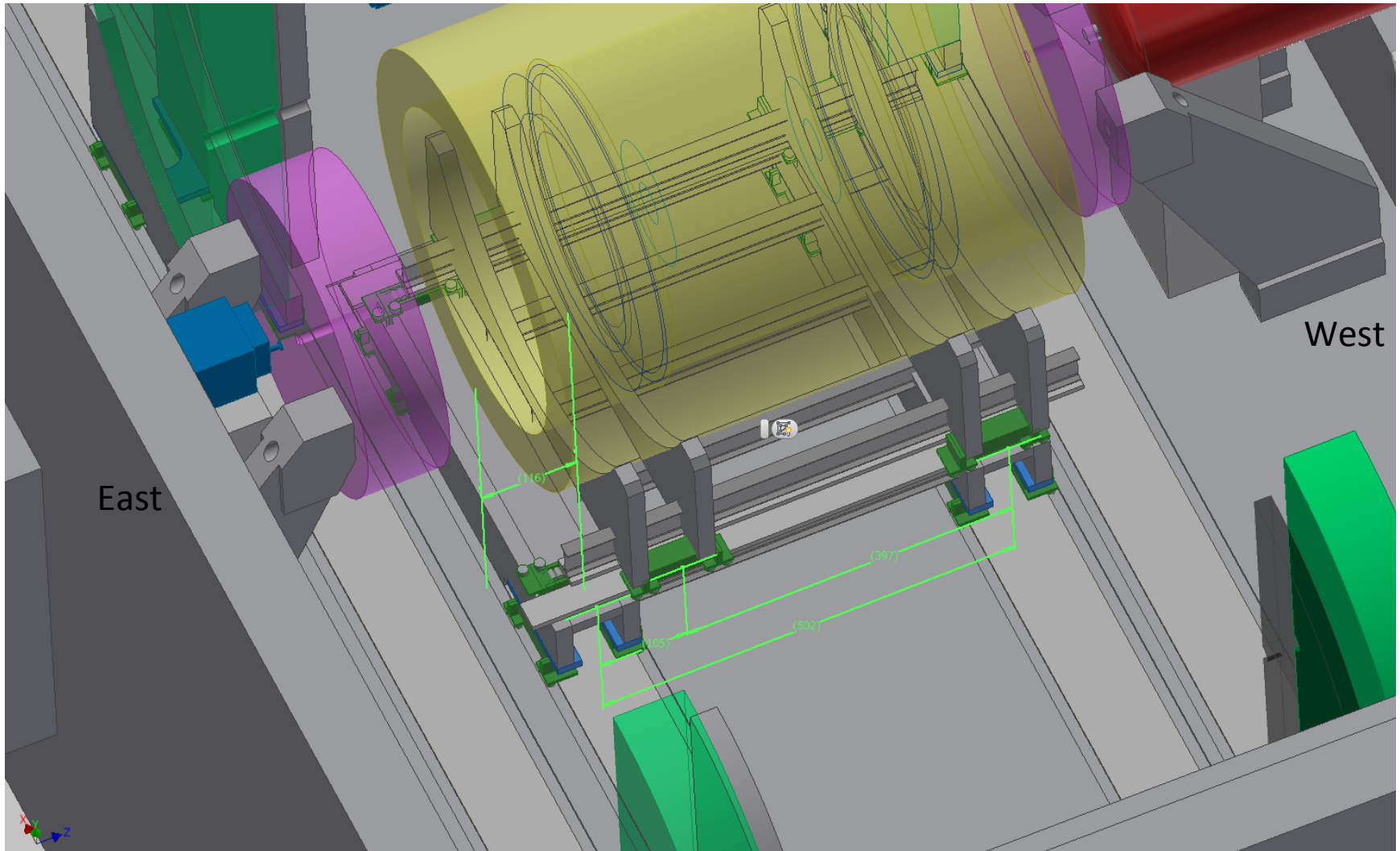
3D Model Access to Central Detectors, Top View



Hadron and Lepton PIDs pulled with carriages. Total clearance with Barrel at home position, $58 + 107 = 165$ cm. Central Barrel Travels along Electron Beam Axis, either direction as needed, to access detectors inside barrel.

EIC Detector Infrastructure

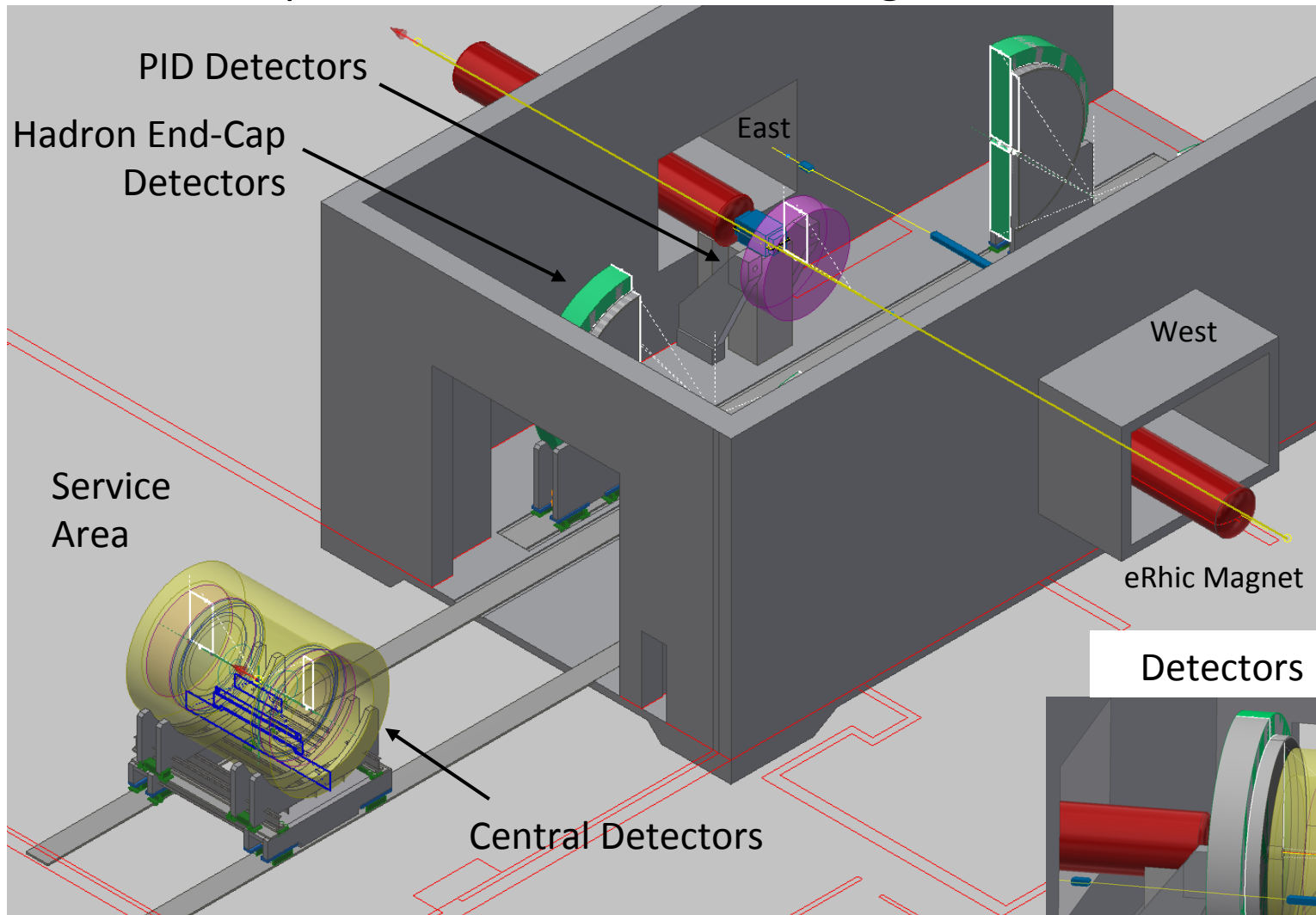
3D Model Access to Central Detectors



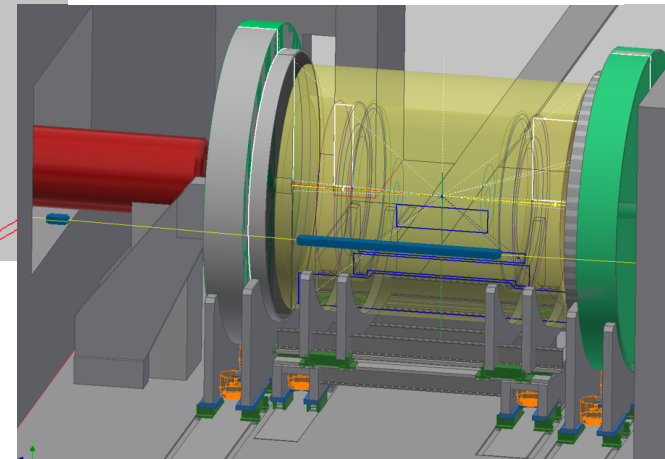
View shows Central Barrel traveled 58 cm along Electron Beam Axis, to access detectors inside barrel - gives approximately 116 cm (46") clearance opening.

EIC Detector Infrastructure – BLDG 1006

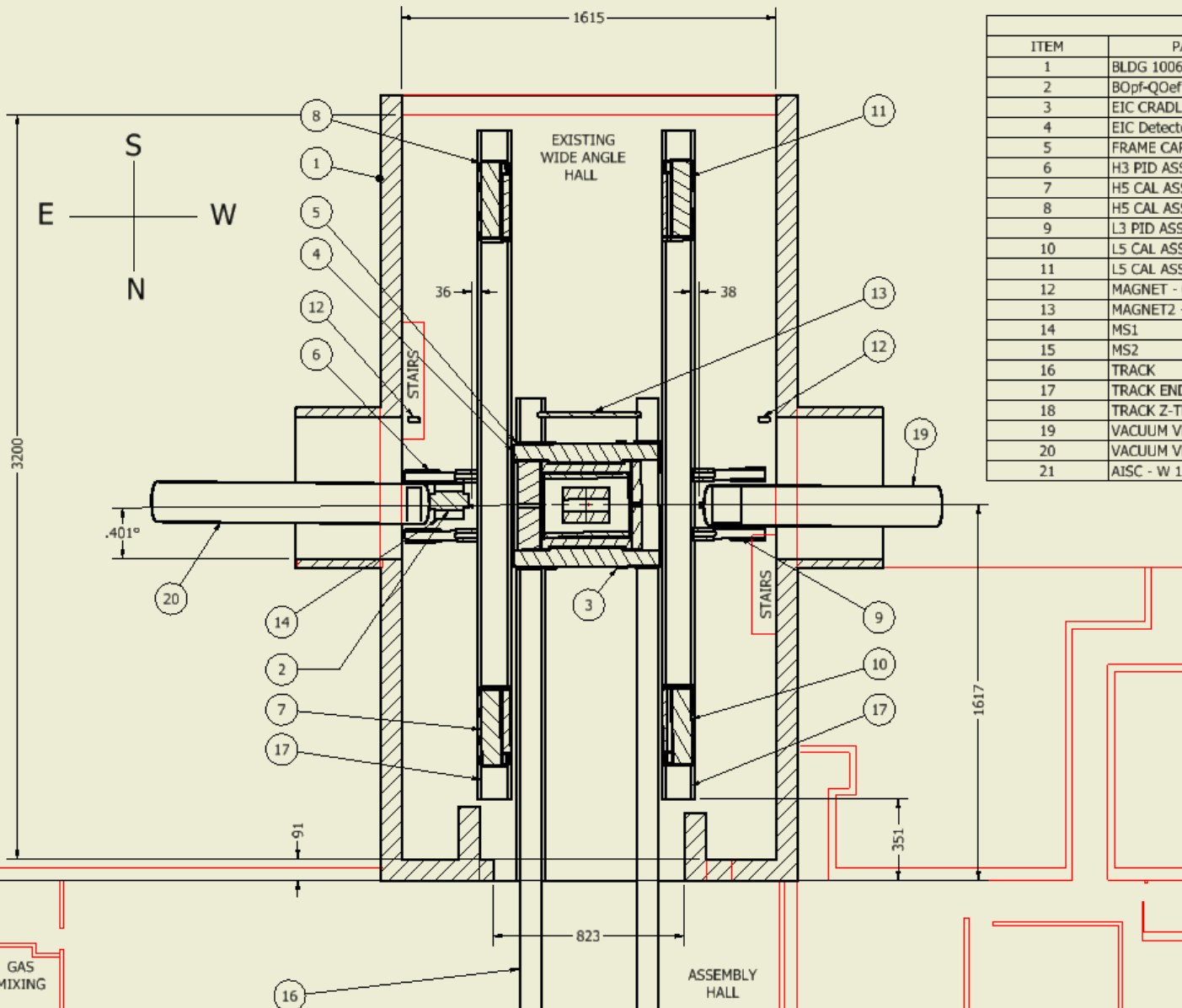
Detectors separated and moved on carriage frames for service



Detectors Re-Assembled



EIC Detector Infrastructure



| PARTS LIST | | |
|------------|--------------------------|-------------------------------|
| ITEM | PART NUMBER | DESCRIPTION |
| 1 | BLDG 1006 | EXISTING BLDG LAYOUT |
| 2 | BOPf-QOef | E-RHIC MAGNET |
| 3 | EIC CRADLE FRAME | |
| 4 | EIC Detector | |
| 5 | FRAME CARRIAGE | |
| 6 | H3 PID ASSY | PID CARRIAGE |
| 7 | H5 CAL ASSY-NORTH | |
| 8 | H5 CAL ASSY-SOUTH | |
| 9 | L3 PID ASSY | PID CARRIAGE |
| 10 | L5 CAL ASSY-NORTH | |
| 11 | L5 CAL ASSY-SOUTH | |
| 12 | MAGNET - ORBIT | E-RHIC MAGNET |
| 13 | MAGNET2 - ORBIT | E-RHIC MAGNET |
| 14 | MS1 | MAGNET SUPPORT |
| 15 | MS2 | MAGNET SUPPORT |
| 16 | TRACK | FOR HILLMAN ROLLER |
| 17 | TRACK END-CAP | FOR HILLMAN ROLLER, 1133 INCH |
| 18 | TRACK Z-TRAVEL | FOR HILLMAN ROLLER, 603 INCH |
| 19 | VACUUM VESSEL -10.5M | E-RHIC MAGNET HOUSING |
| 20 | VACUUM VESSEL -12M | E-RHIC MAGNET HOUSING |
| 21 | AISC - W 16x40 - 173.505 | W-Shape |

EIC Detector Infrastructure

Detector Positioned – BLDG 1006 – Elevation Views

